

WHAT IS CLAIMED IS:

- 1 1. A method comprising:
2 receiving a first multicast routing protocol (MRP) message, wherein the first
3 MRP message is a request to join a multicast group;
4 translating the first MRP message into a second MRP message, wherein the
5 second MRP message is a request to join the multicast group of
6 receivers to which data is being provided by a specific source.
- 1 2. The method of claim 1 wherein the receiving and the translating are
2 performed by a rendezvous point (RP) router.
- 1 3. The method of claim 1 wherein the receiving and the translating are
2 performed by a router positioned in a communication path over which the MRP
3 message travels to reach an RP.
- 1 4. The method of claim 2 wherein the RP router is contained in a first
2 network that operates according to a first multicast routing protocol, wherein the
3 specific source is contained in a second network that operates according to a second
4 multicast routing operating protocol, and wherein the first and second multicast
5 routing operating protocols are different from each other.
- 1 5. The method of claim 2 wherein the first network contains a plurality of
2 routers including the RP router, wherein the second network contains a plurality of
3 routers, and wherein the RP router is positioned within the first network such that data
4 transmitted by RP router to the second network does not pass through another router
5 of the first network.
- 1 6. The method of claim 5 further comprising:
2 the RP router transmitting the second MRP message to the second network;
3 creating a first communication path between the specific source and a receiver
4 in the first network after the router transmits the second MRP message,
5 wherein the first communication path does not include the RP router;
6 transmitting data from the specific source to the receiver via the first
7 communication path.

7. The method of claim 6 further comprising:
 creating a second communication path between the specific source and the
 receiver after data is transmitted from the specific source to the
 receiver via the first communication path, wherein the RP router is not
 included in the second communication path;
 transmitting more data from the specific source to the receiver via the second
 communication path.

8. The method of claim 1 wherein translating comprises:
 inputting first data into a look-up table (LUT), wherein the first data comprises
 an identity of the multicast group of receivers;
 the LUT outputting second data in response to inputting first data, wherein the
 second data comprises an identity of the specific source.

9. The method of claim 8 wherein the LUT can be stored in memory of
 the device that translates the first MRP message into the second MRP message or
 stored in remote memory accessible using a communication protocol.

10. The method of claim 3 wherein the router is contained in a sparse
 mode (SM) communication network and wherein the second MRP message is
 configured for subsequent transmission to a source specific mode (SSM)
 communication network.

11. An apparatus comprising:
 a processor;
 a first memory coupled to the processor, wherein the first memory stores
 instructions executable by the processor;
 wherein the processor implements a method in response to executing the
 instructions, the method comprising:
 translating a first MRP message into a second MRP message, wherein the first
 MRP message is a request to join a multicast group of receivers, and
 wherein the second MRP message is a request to join the multicast
 group of receivers to which data is being provided by a specific source.

1 12. An apparatus comprising:
 2 means for receiving a first multicast routing protocol (MRP) message, wherein
 3 the first MRP message is a request to join a multicast group of
 4 receivers;
 5 means for translating the first MRP message into a second MRP message,
 6 wherein the second MRP message is a request to join the multicast
 7 group of receivers to which data is being provided by a specific source

1 13. A memory medium storing instructions readable and executable by a
 2 router comprising a processor, wherein the router performs a method in response to
 3 executing the instructions, the method comprising:
 4 translating a first MRP message into a second MRP message, wherein the first
 5 MRP message is a request to join a multicast group of receivers, and
 6 wherein the second MRP message is a request to join the multicast
 7 group of receivers to which data is being provided by a specific source.

1 14. The memory medium of claim 13 wherein the router is defined by a
 2 rendezvous point (RP) router.

1 15. The memory medium of claim 14 wherein the RP router is contained in
 2 a first network that operates according to a first multicast routing protocol, wherein
 3 the specific source is contained in a second network that operates according to a
 4 second multicast routing operating protocol, and wherein the first and second
 5 multicast routing operating protocols are different from each other.

1 16. The memory medium of claim 14 wherein the first network contains a
 2 plurality of routers including the RP router, wherein the second network contains a
 3 plurality of routers, and wherein the RP router is positioned within the first network
 4 such that data transmitted by RP router to the second network does not pass through
 5 another router of the first network.

1 17. The memory medium of claim 16 wherein the method further
 2 comprises:
 3 the RP router transmitting the second MRP message to the second network;
 4 creating a first communication path between the specific source and a receiver
 5 in the first network after the RP router transmits the second MRP
 6 message, wherein the first communication path does not include the
 7 RP router;
 8 transmitting data from the specific source to the receiver via the first
 9 communication path.

1 18. The memory medium of claim 17 wherein the method further
 2 comprises:
 3 creating a second communication path between the specific source and the
 4 receiver after data is transmitted from the specific source to the
 5 receiver via the first communication path, wherein the RP router is not
 6 included in the second communication path;
 7 transmitting more data from the specific source to the receiver via the second
 8 communication path.

1 19. The memory medium of claim 13 wherein translating comprises:
 2 inputting first data into a look-up table (LUT), wherein the first data comprises
 3 an identity of the multicast group of receivers;
 4 the LUT outputting second data in response to inputting first data, wherein the
 5 second data comprises an identity of the specific source.

1 20. The memory medium of claim 14 wherein the router is contained in a
 2 sparse mode (SM) communication network and wherein the second MRP message is
 3 configured for subsequent transmission to a source specific mode (SSM)
 4 communication network.